USCGC TAHOMA (WMEC-908)

270 FOOT B CLASS MEDIUM ENDURANCE CUTTER

SPECIFICATION FOR DRYDOCK REPAIRS

2008

Developed By:
Mike Check

Commander (v)
Maintenance and Logistics
Command, Atlantic
300 E. Main Street, Suite (600)
Norfolk, VA 23510-9102

(September 15, 2008 / Rev-0)

TABLE OF CONTENTS

List of Sketches

Revisions Record

This page is used to record specification revisions, which may have occurred subsequent to a Revision 0 (Rev-0) package. Information listed is intended to provide contractors and field unit personnel a means to ensure all the current specification revision pages are present when reviewing or utilizing this specification package.

DATE	REV#	WORK ITEM#	CHANGES MADE

NOTE: All work item and paragraph numbers listed above for a given revision correspond to same numbers in the previous revision. This revised specification is self-contained with all of the above listed changes incorporated.

List of Applicable References

The below-listed documents form a part of this specification to the extent specified herein. Approval/publication dates or revision dates/numbers are also identified, to ensure that same document versions are used at time of specification writing and during contract execution. Electronic copies of the latest Editions of MLCA Standard Specifications are available on the Internet and may be accessed at the following Internet Uniform Resource Locator (URL) address: http://www.uscg.mil/mlclant/vdiv/standard_specifications.asp. Guidance for obtaining copies of all other documents referenced herein is provided in the solicitation.

Order of precedence. In the event of conflicts between text of this specification and the applicable references specified herein, order of precedence shall be in accordance with MLCA Standard Specification 0000_STD, paragraph 3.2 (Order of precedence), unless otherwise specified by the Contracting Officer (KO). The Contractor shall immediately notify the KO in writing of any perceived conflicts contained herein. Nothing in these documents, however, supersedes applicable laws and regulations, unless a specific exemption has been obtained.

FEDERAL AND MILITARY SPECIFICATIONS AND STANDARDS

MIL-A-22262, Mar 1996, Abrasive Blasting Media Ship Hull Blast Cleaning

Commercial Item Description (CID) A-A-59316, Nov 2003, Abrasive Materials for Blasting

OTHER GOVERNMENT DOCUMENTS, DRAWINGS, AND PUBLICATIONS

DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0740_STD, 2004 Edition, Welding and Allied Processes

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 8634_STD, 2004 Edition, Drydocking

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 8635_STD, 2004 Edition, Provide Temporary Logistics

DRAWINGS

Coast Guard Drawing 905 WMEC 111-002, Rev E, Shell Expansion, Aft of Frame 182

Coast Guard Drawing 905 WMEC 111-104, Rev B, Transom Plating & Framing

Coast Guard Drawing 905 WMEC 114-003, Rev B, Shaft Fairwaters and Rope Guards

Coast Guard Drawing 905 WMEC 122-006, Rev E, Transverse Bulkheads 196, 207, 228, 242

Coast Guard Drawing 905 WMEC 131-002, Rev B, Main Deck Plating & Framing Aft 182

Coast Guard Drawing 905 WMEC 320-009, Rev N, Electric Plant Elementary Wiring Diagram

Coast Guard Drawing 905 WMEC 475-001, Rev D, Degaussing System Elementary Wiring Diagram

Coast Guard Drawing 905 WMEC 475-002, Rev D, Degaussing System General Locations

Coast Guard Drawing 905 WMEC 528-001, Rev H, Plumbing Vents and Drain System Diagram

Coast Guard Drawing 905 WMEC 612-001, Rev G, Rails, Stanchions, and Lifelines

Coast Guard Drawing 905 WMEC 635-001, Rev F, Hull, Thermal, & Acoustic Insulation A/D

Coast Guard Drawing 905 WMEC 801-022, Rev F, Docking Plan

PUBLICATIONS

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Jun 2006, Coatings and Color Manual

Coast Guard Technical Publication (TP) 4902, Automatic Degaussing Control Equipment – Type MCD-1

INDUSTRY STANDARDS

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.1 (SSPC-SP 1), 2004, Solvent Cleaning

The Society for Protective Coatings (SSPC)/NACE International (NACE) Joint Surface Preparation Standard SSPC-SP 12/NACE No.5, 2004, Surface Preparation and Cleaning of Steel & Other Hard Materials by High and Ultrahigh Pressure Water Jetting

The Society for Protective Coatings (SSPC)/NACE International (NACE) 2004, Joint Surface Preparation Standard SSPC-SP 10/NACE No.2, Near-White Blast Cleaning

ASTM International E797, 2005, Standard Practice for Measuring Thickness by Manual Ultrasonic Pulse-Echo Contact Method

List of Government-furnished Property

The following is a list of property, which the Government will furnish. This list supersedes any other material obligations indicated or implied by referenced drawings.

WORK ITEM	MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
5	Y	*Transducer cover plate	N/A	3 ea.	50.00

***Government-loaned property, which shall be returned to the vessel upon completion of the availability.**
****New or refurbished equipment that the Government may provide for installation in place of existing equipment.**
*****Government-furnished property, which is to be supplied by either the vessel, Electronic Systems Support Unit (ESU) or local Electronic Support Detachment (ESD).**

List of Critical Inspection Items

The following is a list of work items, which contain Critical Inspection reports, which the Contractor must complete within the first 25% of the availability contract period (see Std Spec 0000_STD, paragraph 3.6.2 (Inspection report particulars)):

Work Item	Title
1	Perform Inspections and Structural Repairs in Various Locations

Specification Feedback

The intent of this section is to inform all users that a spec feedback mechanism is in place, and is located on the MLCA Naval Engineering Division's website. Spec feedback is a very important part of our overall continuous improvement process, and is crucial to specification development. It will allow spec writers to capture all specification-related lessons learned, and avoid mistakes or ambiguities in follow-on availabilities. All feedback will be reviewed, evaluated, and responded to in a timely manner.

If you have access to the CGWeb (Intranet), please use the following link, which will connect you to the MLCA(v) Naval Engineering website, for submitting your feedbacks:

http://webapps.mlca.uscg.mil/vdiv/specifications/feedback/default.cfm

If you do not have access to the CGWeb (Intranet), you may still submit your feedbacks, using the following web link:

http://www.uscg.mil/mlclant/vdiv/specfeedback.asp

PC_270B WMEC
(21 Sep 2004)

Principal Characteristics

270B WMEC (B CLASS) MEDIUM ENDURANCE CUTTER	
Length Overall	270' 0"
Depth (main deck at side to baseline)	33' 3"
Maximum Beam	38' 5/8"
Height of Highest Projection (above DWL)	N/A
Frame Spacing	1' 0"
Full Load Draft	13.85'
Full Load Displacement	1825.64 long tons
Shore Tie Voltage Requirements	450 vac, 400A, 3 phone cables
PROPELLER / SHAFT	
Number of Propellers	2
Number of Blades per Propeller	4
Diameter of Propeller	9'
Pitch	Controllable
Revolutions per Minute (RPM)	260
Shaft Diameter	10.55" at exit of hull

General Requirements

1. SCOPE

1.1 Intent. This item describes the general requirements to be followed by the Contractor while conducting this availability.

1.2 Government-furnished property.

None.

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Maintenance and Logistics Command Atlantic (MLCA) Standard Specification 0740_STD, 2004 Edition, Welding and Allied Processes

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Jun 2006, Coatings and Color Manual

3. REQUIREMENTS

3.1 General. The Contractor shall conform to all requirements specified in Std Spec 0000_STD and in this item, as applicable, during the performance of this availability.

NOTICE!

The requirements of paragraph 3.1 (General) applies to all work under the scope of this contract, whether explicitly stated in work items or not, and also to all other work subsequently authorized by changes, modifications, or extensions to the contract.

3.2 Contractor-provided fire watch personnel. The Contractor shall provide fire watch personnel and equipment.

3.3 Welding and brazing requirements. The Contractor shall perform all welding and allied processes, and nondestructive inspection (NDI), in accordance with Std Spec 0740_STD.

3.4 Term substitution - COTR for COR. The Contractor shall be aware that the term "COR" (Contracting Officer's Representative) has been discontinued in favor of "COTR" (Contracting Officer's Technical Representative); consequently, whenever "COR" is encountered in this specification package, including referenced standard specifications and other referenced documents, it shall refer to "COTR", explicitly.

4. NOTES

4.1 Access to COMDTINST M10360.3. The COMDTINST M10360.3 may be accessed at the following URL address:

http://www.uscg.mil/directives/cim.asp

4.2 QA inspection forms. QA inspection forms (QA-1 thru QA-5), required in Std Spec 0000_STD to be completed and submitted during preservation of "critical-coated surfaces", are provided at the end of this item.

QA-1: QUALITY ASSURANCE INSPECTION FORM - PRESERVATION CHECKLIST

CHECKPOINT 1 - COATING SYSTEM COMPLIANCE	
	Ensure all coatings are in compliance with COMDTINST M10360.3, Appendix C.
CHECKPOINT 2 - PAINT STORAGE	
	Ensure all coatings are kept at a temperature of 65 to 85°F at all times, unless otherwise specified by the coating manufacturer(s).
CHECKPOINT 3 - AMBIENT CONDITIONS	
	Ensure surface and surrounding temperatures are each between 50 and 90°F for water-based coatings, and 35 and 95°F for other coatings, unless otherwise specified by the coating manufacturer(s).
	Ensure maximum relative humidity (RH) is as follows, from surface preparations through final curing of topcoat: 50% for tanks, voids, and vent plenum; and 85% for all other areas, unless otherwise specified by manufacturer(s).
	Ensure surface temperature is at least 5°F above the dew point, unless otherwise specified by the coating manufacturer(s).
CHECKPOINT 4 - PRE-SURFACE PREPARATION	
	Remove surface contaminants (soluble salts, loose rust, mud, and marine growth) with low pressure fresh water wash down (maximum 5,000 psi). If oil and grease are present, perform solvent cleaning, as per SSPC SP-1.
CHECKPOINT 5 - SURFACE PREPARATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure cleanliness of prepared surface is as per specification (i.e.: SSPC SP-12, SP-11, SP-10?).
	Verify surface anchor profile (1.5-3.5 mils for abrasive-blasted steel surfaces; 1.0 mil (minimum) for power-tool cleaned surfaces; 1.0-1.5 mils for abrasive-blasted aluminum surfaces); and 1.5 -2.5 for surfaces to be coated w/single coat of inorganic zinc).
	Measure soluble salt conductivity (5 measurements per 1000 sqft) - maximum threshold: 70 microsiemens/cm for non-submerged surfaces and 30 microsiemens/cm for submerged surfaces.
CHECKPOINT 6 - PRIMER COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Verify proper mixing and stand-in (induction) times.
	Ensure no paint is applied when the temperature is expected to drop to freezing before the paint has dried.
	Ensure surfaces are completely dry, unless otherwise allowed by the Coating Manufacturer(s).
	Verify wet film thickness at random, to prevent under or over application.
	Brush out all runs, sags, drips, and puddles.
	Perform visual inspection for holidays and other defects.
CHECKPOINT 7 - STRIPE COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure overcoating window is as per manufacturer's instructions.
	After primer coat (mist coat after inorganic zinc), brush-apply un-thinned coat of same primer paint over edges, weld seams, cut-outs, and areas of complex geometries @ 3-4 mils wet film thickness (WFT).
CHECKPOINT 8 - TOP COAT APPLICATION	
	Verify environmental conditions (see CHECKPOINT 3).
	Ensure overcoating window is as per manufacturer's instructions.
	Verify proper mixing and stand-in (induction) times, as applicable.
	Verify wet film thickness at random, to prevent under or over application.
	Brush out all runs, sags, drips, and puddles.
CHECKPOINT 9 - FINAL INSPECTION	
	Verify final system dry film thickness.
	Verify system cure for service resumption - U/W Body surfaces: 5-8 hours @ 77 degrees F; Potable water tanks: 7 days @ 77 degrees F.
	Ensure potable water tank exhaust ventilation is maintained continuously from and during coating application through final system cure (minimum 7 days @ 77 degrees F.), to exhaust all solvent to the atmosphere and to prevent solvent entrapment.
CHECKPOINT 10 - RECORD KEEPING	
	Complete, sign, and submit all provided QA Inspection Forms.

Signature of Inspector:_____Date:_____

QA-2: QUALITY ASSURANCE INSPECTION FORM
ENVIRONMENTAL READINGS

(Use one sheet for each activity. Record conditions every four hours from before surface preparation to application of final coating system coat)

DATE	TIME	ENTER ACTIVITY *(Surface preparation, primer coat, barrier coat, top coat, etc?)*	LOCATION	DEW POINT	SURFACE TEMP.	% REL. HUMIDITY	SIGNATURE OF INSPECTOR

.**Signature of Inspector:**_____**Date:**_____

QA-3: QUALITY ASSURANCE INSPECTION FORM
SURFACE PROFILE LOG

Vessel Name And Hull Number:_____

Work Item Title:_____

Location Of Work (Including Frame Numbers):_____

Area (Square Feet):_____

Surface Preparation Method:_____

Abrasive Manufacturer And Size:_____

Degreasing Method Used:_____

Number Of Hours Surfaces (Steel Only) Left Unpainted:_____

Sweep blasting performed to remove flash rusting (steel)? Yes/No:_____

Place Surface Profile Replica Tapes In The Spaces Provided Below, To Serve As Permanent QA record. Maintain separate log for each area/location. When an Area Is Divided Into Separate Sections, Maintain A Separate Log for Each Section.		**AVERAGE MILS (IAW ASTM D4417, METHOD C)**
Place Surface Profile Replica Tape Here Reading:_____ mils	• Place Surface Profile Replica Tape Here Reading:_____ mils	
Place Surface Profile Replica Tape Here Reading:_____ mils	Place Surface Profile Replica Tape Here Reading:_____ mils	
Place Surface Profile Replica Tape Here Reading:_____ mils	Place Surface Profile Replica Tape Here Reading:_____ mils	
Place Surface Profile Replica Tape Here Reading:_____ mils	Place Surface Profile Replica Tape Here Reading:_____ mils	

Date and Time:_____

Location of Surface Profile Measurements:_____

Signature of Inspector:_____

QA-4: QUALITY ASSURANCE INSPECTION FORM
SURFACE SOLUBLE SALT CONDUCTIVITY LOG

Vessel Name and Hull Number:_____

Work Item Title:_____

Location of Work (including frame numbers):_____

Area (square feet):_____

DATE	TEST LOCATIONS	CONDUCTIVITY (microsiemens/cm)

Date and Time:_____

Signature of Inspector:_____

QA-5: QUALITY ASSURANCE DATA FORM
DRY FILM THICKNESS (DFT) MEASUREMENTS IAW SSPC PA-2
(Use one sheet for each sequence)

Vessel Name and Hull Number:_____

Work Item Title:_____

Coating Manufacturer:_____

Product Name:_____

Batch Number:_____

Induction Time:_____

Coating System Sequence (Indicate whether: primer, touch-up primer, barrier coat, 3rd coat?):_____

DFT MEASUREMENT NUMBER	LOCATION OF READINGS	MEASURED DFT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Application Method (Airless, Conventional Spray, Rolled):_____

Average DFT: _____

Date and Time: _____

Signature of Inspector: _____

WORK ITEM 1: Perform Inspections and Structural Repairs in Various Locations

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform inspections and structural repairs in various locations.

1.2 Government-furnished property.

None

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0740_STD, 2004 Edition, Welding and Allied Processes

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Coatings and Color Manual

Coast Guard Drawing 905 WMEC 111-002, Rev E, Shell Expansion, Aft of Frame 182

Coast Guard Drawing 905 WMEC 111-104, Rev B, Transom Plating & Framing

Coast Guard Drawing 905 WMEC 122-006, Rev E, Transverse Bulkheads 196, 207, 228, 242

Coast Guard Drawing 905 WMEC 131-002, Rev B, Main Deck Plating & Framing Aft 182

Coast Guard Drawing 905 WMEC 612-001, Rev G, Rails, Stanchions, and Lifelines

Coast Guard Drawing 905 WMEC 635-001, Rev F, Hull, Thermal, & Acoustic Insulation A/D

ASTM International E797, 2005, Standard Practice for Measuring Thickness by Manual Ultrasonic Pulse-Echo Contact Method

3. REQUIREMENTS

3.1 General.

3.1.1 Critical Inspection Report. The Contractor shall submit a critical inspection report (CIR) for the inspections listed in the following paragraph(s):

- 3.3.1.1 Ultrasonic thickness measurement.
- 3.3.2.1 Ultrasonic thickness measurement.

3.1.2 Related work items. The Contractor shall accomplish this work item in conjunction with the following, which are separate work items in this specification package:

- “Routine Drydocking”.
- “Inspect and Renew Electrical Cables”.
- “Renew Weather Deck Drain and Piping”.
- “Preserve Freeboard Surfaces - Partial (In Drydock)”

3.1.3 Interferences. The Contractor shall be aware that interferences in way of work include, but are not limited to the following:

- Bulkhead sheathing.
- Insulation.
- Sheet metal.
- Electrical cables.
- Degaussing equipment cabinets.
- Deck drains.
- Diesel exhaust piping.
- Emergency Diesel Generator.
- Deck plates.
- Stanchions and rails.
- Deck fittings and equipment.

- Fuel jettison cable.
- Steering gear and hydraulic unit.
- Weight lifting equipment.
- Lighting fixtures.
- EDG Lube Oil and Jacket Water control boxes.
- P-100 Electrical control boxes.
- EDG filters.

3.2 Insulation removal. The Contractor shall remove sheet metal and insulation from the starboard bulkhead (frame 228 to transom) and from the entire transom to support inspections. The Contractor shall also remove insulation from the overhead from the starboard bulkhead to centerline and from the transom forward (approximately 10 feet) to support inspections.

3.3 Inspections and renewals.

3.3.1 Transom / Aft Steering Compartment. The Contractor shall accomplish the following, using Coast Guard Drawings 905 WMEC 131-002, 111-104, 122-006 and 635-001 as guidance:

3.3.1.1 Ultrasonic thickness measurement. Perform a total of 100 thickness measurements of hull plating and structural members, in locations designated by the Coast Guard Inspector. **Submit CIR**. The ultrasonic apparatus, procedure requirements, and report shall be in accordance with ASTM E797. The report results shall additionally include, for each test point:

- Location.
- Original metal thickness.
- Measured metal thickness.
- Percent deterioration (calculation is based on the original metal thickness).

NOTICE!

UT inspections shall be concentrated on adjacent areas of the damaged hull plating (i.e. the entire transom and the starboard side up to Frame 228)

3.3.1.2 Hull plating renewal. Renew approximately 200 square feet of damaged hull plating located on the starboard side and transom, from frame 241 to centerline of the transom.

3.3.1.3 Structural member renewal. Renew approximately 150 linear feet of damaged transverse and stiffeners located on the starboard side, aft of frame 241 to centerline of the transom.

3.3.1.4 Insulation renewal. Renew all removed insulation and sheet metal as shown on Coast Guard Drawing 905 WMEC 635-001.

3.3.2 Main Deck. The Contractor shall accomplish the following, using Coast Guard Drawing 905 WMEC 131-002 as guidance:

3.3.2.1 Ultrasonic thickness measurement. Perform a total of 100 thickness measurements of main deck plating and structural members, in locations designated by the Coast Guard Inspector. **Submit CIR**. The ultrasonic apparatus, procedure requirements, and report shall be in accordance with ASTM E797. The report results shall additionally include, for each test point:

- Location.
- Original metal thickness.
- Measured metal thickness.
- Percent deterioration (calculation is based on the original metal thickness).

3.3.2.2 Main Deck plating renewal. Renew approximately 25 square feet of damaged Main Deck plating located on the aft starboard side, including approximately 30 linear feet of damaged stiffeners.

3.3.2.3 Insulation renewal. Renew all removed insulation on underside of main deck as shown on Coast Guard Drawing 905 WMEC 635-001.

3.3.2.4 Stanchion renewal. Renew stanchions and foundations located in the area of damaged plating as shown on Coast Guard Drawing 905 WMEC 612-001.

3.3.3 Freeboard. The Contractor shall renew approximately 10 square feet of damaged hull located on the starboard side (approx. Frame 230) using Coast Guard Drawing 905 WMEC 111-002 as guidance.

3.3.4 Fuel jettison cable.

3.3.4.1 The Contractor shall inspect the fuel jettison cable in the vicinity of repairs to determine if any damage such as abrasions, lacerations, kinks or any physical abnormalities is present. Submit a CFR.

3.3.4.2 The Contractor shall renew approximately 15 linear feet of protective pipe that the fuel jettison cable runs through.

3.3.5 Bit and cleat inspection. The Contractor shall perform nondestructive inspection of the welds associated with the starboard bit and cleat using one of the methods described in Std Spec 0740_STD, Appendix C. Submit a CFR.

3.4 Quality assurance.

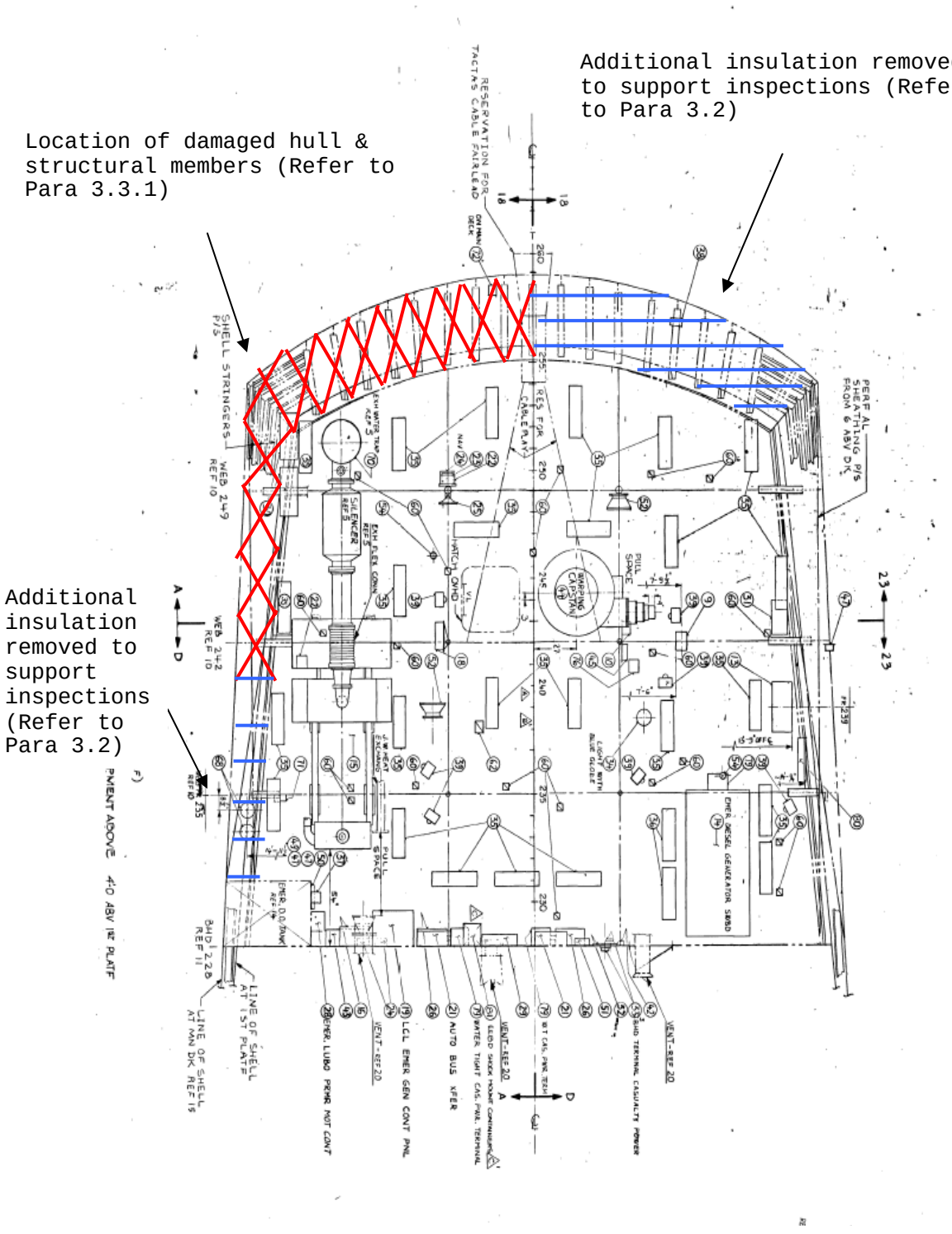
3.4.1 Boundary tests. The Contractor shall verify the integrity of all boundaries affected by this work item using one of the methods described in Std Spec 0740_STD, Appendix C. Submit a CFR.

3.4.2 Apparatus standardization. The Contractor shall perform ultrasonic equipment standardization in accordance with ASTM E797, Section 7 (Standardization of Apparatus) and Section 8 (Technical Hazards).

3.5 Touch-up preservation. The Contractor shall prepare and coat all new and disturbed exterior and interior surfaces to match existing adjacent surfaces, in accordance with COMDTINST M10360.3, Appendix A (Cutter and Boat Exterior Painting Systems) and Appendix B (Cutter and Boat Interior Painting Systems), respectively, and as applicable. Abide by all touch-up requirements outlined in paragraph 3.11.9 (Touch-ups and minor coating repairs)) of Std Spec 0000_STD.

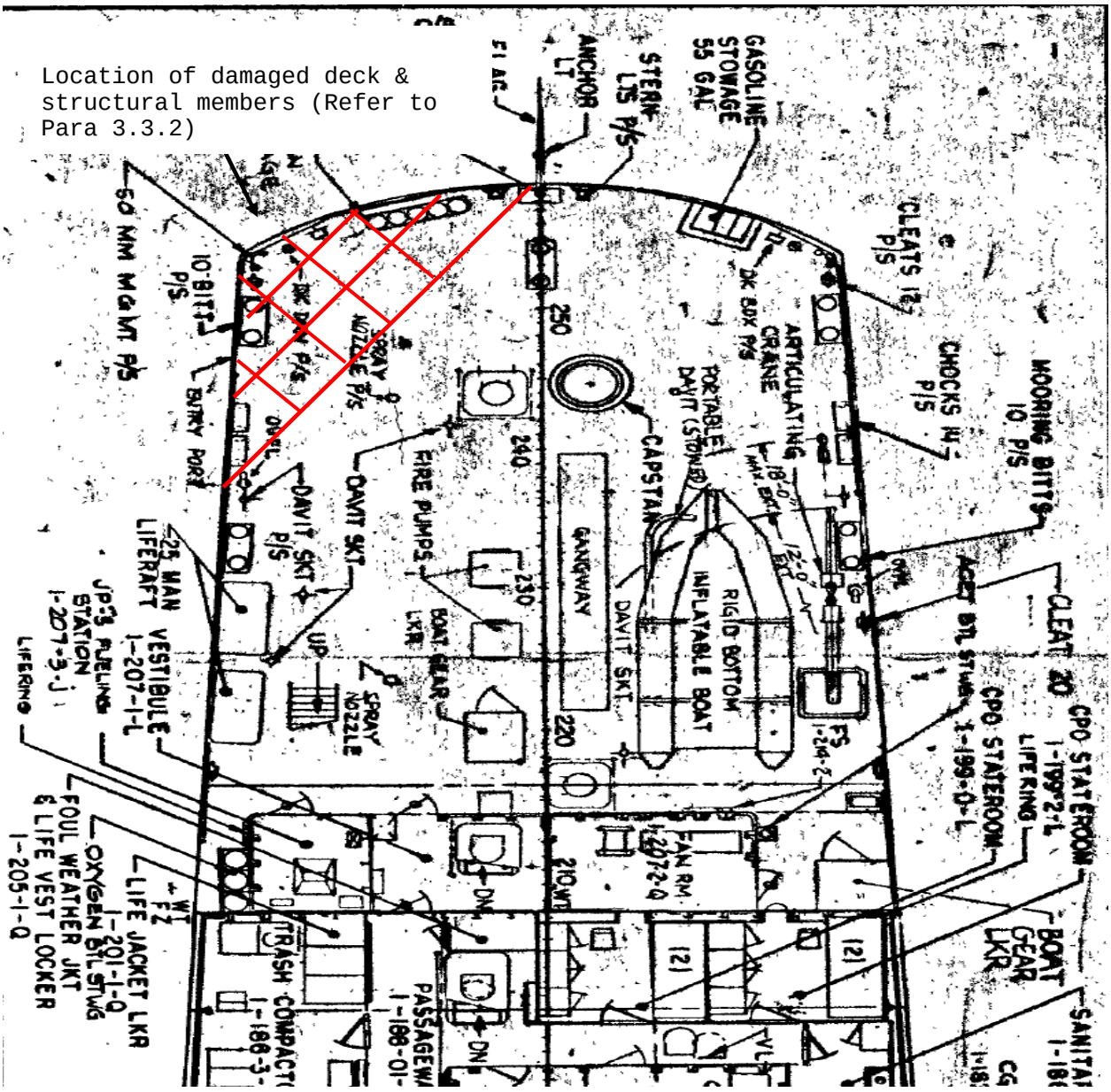
4. NOTES

4.1 Calibration checks. The Contractor shall check the test equipment's calibration before and after each sequence of measurements, at least once per eight-hour work period, and after any power interruption. If recalibration is required, the Contractor shall repeat all thickness measurements made since the previous calibration check.



MLCA Sketch S11100_MWC__270 – SK1

"Transom / Aft Steering Compartment"



MLCA Sketch S11100_MWC__270 – SK2

“Main Deck”

WORK ITEM 2: Inspect & Renew Various Electrical Cables

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to inspect and renew various electrical cables.

1.2 Government-furnished property.

None

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Drawing 905 WMEC 320-009, Rev N, Electric Plant Elementary Wiring Diagram

Coast Guard Drawing 905 WMEC 475-001, Rev D, Degaussing System Elementary Wiring Diagram

Coast Guard Drawing 905 WMEC 475-002, Rev D, Degaussing System General Locations

Coast Guard Technical Publication (TP) 4902, Automatic Degaussing Control Equipment – Type MCD-1

3. REQUIREMENTS

3.1 General.

3.1.1 Related work items. The Contractor shall accomplish this work item in conjunction with the following, which are separate work items in this specification package:

- “Perform Inspections and Structural Repairs in Various Locations”.

3.1.2 Interferences. The Contractor shall be aware that interferences in way of work include, but are not limited to the following:

- Insulation and sheet metal.
- Bulkheads and overhead supports.
- Diesel exhaust piping.
- Electrical switchboard.
- Degaussing equipment.
- Steering gear and hydraulic unit.
- Weight lifting equipment.
- Lighting fixtures.
- Articulating crane hydraulic unit.

3.2 Degaussing cables. The Contractor shall perform the following using Coast Guard Technical Publication TP-4902:

3.2.1 Perform a visual inspection of the degaussing cables at location of suspected damage to determine if any damage such as abrasions, lacerations, kinks or any physical abnormality is present. Submit a CFR.

3.2.2 Reinstall degaussing cables as shown on Coast Guard Drawings 905 WMEC 475-001 and 475-002.

3.2.3 Measure and record degaussing cable voltages and insulation resistance to ground readings in accordance with TP-4902, Section 4.26. Submit a CFR.

3.3 Emergency Diesel Generator cables.

3.3.1 The Contractor shall renew the following Emergency Diesel Generator (EDG) cables as shown on Coast Guard Drawing 905 WMEC 320-009.

- EDG Control cable (7 triple control cable. Nominal outside diameter: 0.910 inches. NSN: 6145-01-202-9011)
- EDG Power Supply cable (Nominal outside diameter: 1.947 inches. NSN: 6145-01-202-0677)

3.3.2 The Contractor shall perform insulation resistance measurements on all newly installed cable using 500 volt DC megger before energizing circuit(s). Correct any defects noted,

to ensure that reading of conductors to ground and between conductors is of 1 megohm, minimum.

3.4 Cable supports. The Contractor shall renew approximately five EDG cable supports and five degaussing cable supports and associated cable banding.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 3: Renew Weather Deck Drain and Piping

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew the 3-252-2 weather deck drain and associated piping.

1.2 Government-furnished property.

None

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Coatings and Color Manual

Coast Guard Drawing 905 WMEC 528-001, Rev H, Plumbing Vents and Drain System Diagram

3. REQUIREMENTS

3.1 Interferences. The Contractor shall be aware that interferences in way of work include, but are not limited to the following:

- Insulation.
- Electrical cables.
- Diesel exhaust piping.
- Deck plates.

3.2 Deck drain renewal. The Contractor shall renew the 3-252-2 deck drain and associated piping (approximately 20 feet) and associated piping hangers and supports.

3.3 Touch-up preservation. The Contractor shall prepare and coat all new and disturbed exterior and interior surfaces to match existing adjacent surfaces in accordance with Std Spec 0000_STD, paragraph titled “General preservation requirements”; and in accordance with COMDTINST M10360.3, Appendix A (Cutters and Boats Exterior Painting Systems) and Appendix B (Cutters and Boats Interior Painting Systems), respectively, and as applicable, to match existing adjacent surfaces.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 4: Preserve Freeboard Surfaces - Partial (In Drydock)

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to overcoat the damaged freeboard surfaces (see 4.1 (Definition of freeboard surfaces)), while the vessel is drydocked.

NOTICE!

Approximately 100 sq feet of freeboard surface is in need of preservation work (Starboard side, Frame 220 to transom).

1.2 Government-furnished property.

None.

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 0000_STD, 2006 Edition, General Requirements

Coast Guard Commandant Instruction (COMDTINST) M10360.3 (series), Coatings and Color Manual

Commercial Item Description (CID) A-A-59316, Nov 2003, Abrasive Materials for Blasting

MIL-A-22262, Mar 1996, Abrasive Blasting Media Ship Hull Blast Cleaning

The Society for Protective Coatings (SSPC)/NACE International (NACE) 2004, Joint Surface Preparation Standard SSPC-SP 10/NACE No.2, Near-White Blast Cleaning

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.1 (SSPC-SP 1), 2004, Solvent Cleaning

The Society for Protective Coatings (SSPC)/NACE International (NACE) Joint Surface Preparation Standard SSPC-SP 12/NACE No.5, 2004, Surface Preparation and Cleaning of Steel & Other Hard Materials by High and Ultrahigh Pressure Water Jetting

3. REQUIREMENTS

3.1 General.

3.1.1 Related work items. The Contractor shall accomplish this work item in conjunction with the following related work items in this specification package:

- “Perform Inspections and Structural Repairs in Various Locations”
- “Routine Drydocking”.

3.1.2 Protective measures. The Contractor shall protect non-affected vessel's equipment, components, and spaces during surface preparation and coating application procedures, as specified in paragraph titled "Protective measures" in Std Spec 0000_STD. Provide suitable coverings to protect existing liferails, vents, bulkheads, portlights, equipment, deck surfaces, and deck fittings in the vicinity of the work area.

3.2 Overcoating procedures. The Contractor shall accomplish the following overcoating procedures:

3.2.1 Pre-surface preparation wash. Accomplish low-pressure (less than 5,000 psi) fresh water wash of all affected surfaces, to remove soluble chlorides and other surface contaminants. Collect wash water for proper disposal.

3.2.2 Surface preparation.

3.2.2.1 Prepare surfaces in which mechanical damage extends into the substrate, or where there is evidence of corrosion (a total of approximately 25 square feet), as follows:

STEEL SURFACES	ALUMINUM SURFACES
SSPC-SP10/NACE No. 2, using grit conforming to MIL-A-22262 (1.5 to 2.5 mil anchor profile) -Or- SSPC-SP 11 (1.0 mil anchor profile) -Or- SSPC-SP 12/NACE No. 5, WJ-2/L	Brush blast to bare metal with clean, fine aluminum oxide, garnet or equivalent inert material conforming CID A-A-59316, Type I & IV (1.0-1.5 mil anchor profile). -Or- Power tool clan, using non-metallic abrasive padding, to remove all coatings and contamination. -Or- SSPC-SP 12/NACE No. 5, WJ-2/L

3.2.2.2 Roughen/abrade all surfaces, where existing top-coating is intact, by sweep-blasting to de-gloss the top-coating and produce suitable surface profile to allow a new topcoat to bite into.

NOTICE!

A profile suitable for overcoating would be similar to what is produced by abrading the coating with 100-grit paper

3.2.2.3 Feather edges of topcoating into adjacent bare areas, to create a smooth transition.

3.2.3 Post-surface preparation cleaning. Perform solvent cleaning of all prepared surfaces, in accordance with SSPC-SP 1, prior to coating application. Collect all debris from solvent cleaning for proper disposal.

3.2.4 Coating application. Spot coat all bare steel surfaces with a "Polysiloxane Epoxy Primer/Mid-Coat" coating, to a thickness matching that of existing adjacent undercoating, ensuring that the primer coating extends over the feathered edges of the sound/intact coating, to minimize edge lifting and provide a better appearance. Overcoat all primed and abraded surfaces, with an "Epoxy Polysiloxane" coating, White (17925), to ensure a uniform thickness throughout.

NOTICE!

List of authorized suppliers for the "Polysiloxane Epoxy Primer/Mid-Coat" and "Epoxy Polysiloxane" coatings is provided in COMDTINST M10360.3, Appendix C (Authorized Coatings for Use on Cutters and Boats).

3.4 In-process quality control measures. The Contractor shall abide by all the safety, preservation, and quality control requirements specified in Std Spec 0000_STD, paragraph titled "General preservation requirements.

NOTICE!

Surfaces being preserved are considered "critical-coated surfaces".

3.5 Repair of un-intended damages. The Contractor shall repair all damages, including overspray, incurred to surfaces not covered by the scope of this work item, during surface preparation and paint application procedures.

4. NOTES

4.1 Definition of freeboard surfaces. The freeboard, as specified herein, is defined as exterior continuous shell surfaces from the upper limit of the boot-topping to the 02 Deck Level, including the side of the bridge wings, anchor pockets and rail stanchions.

86340_SCW_FLT (05 Jun 2008)
270 B (22 May 2008)
908_MWC (12 Sep 2008)

WORK ITEM 5: Routine Drydocking

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to drydock and undock the cutter, and perform various drydocking-related inspections and tests.

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	*Transducer cover plate	N/A	3 ea.	50.00

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 8634_STD, 2004 Edition, Drydocking

Coast Guard Drawing 905 WMEC 114-003, Rev B, Shaft Fairwaters and Rope Guards

Coast Guard Drawing 905 WMEC 801-022, Rev F, Docking Plan

3. REQUIREMENTS

3.1 General. The Contractor shall drydock and undock the cutter, in accordance with Std Spec 8634_STD, using Coast Guard Drawing 905 WMEC 801-022 as guidance.

3.2 Cutter Conditions. The Contractor shall use the below-listed information for purposes of performing calculations, as described in paragraph 20.2 of Appendix B of Std Spec 8634_STD. (See Note 4.4 (Cutter characteristics)). The Contractor shall be responsible for any change to the cutter's loading condition necessary, for drydocking, to meet the capability of the Contractor's dock.

- Displacement (LT): 1860.
- VCG (FT ABL): 17.5

- LCG (FT aft/fwd amidships): 3.98 aft amidships.
- Length of supported keel (FT): 198.

3.3 Blocking position. The Contractor shall arrange keel and side blocks, as shown on the vessel's docking plan, to facilitate docking of the vessel in blocking position No. 1. Ensure that the minimum keel block height is 48 inches above the docking facility deck.

3.4 Routine work. The Contractor shall perform the below-designated routine drydocking work, in accordance with Std Spec 8634_STD, Appendix A (Requirements for Routine Drydocking Work). (See paragraph 4.3 (Paragraph number relationships)). Follow the timeline for work completion and inspection report submission, as specified in paragraph 20.2 (Inspections and repair work).

SUBSECTION	TITLE
20.1	Underwater hull survey.
20.4	Stern tube and strut bearing inspection.
20.5	Propeller and shaft inspection.
20.6	Rudder inspection.
20.8	Zinc anode inspection.

3.5 Hull cleaning - removal of marine growth. The Contractor shall start cleaning the hull within four hours after the vessel has been lifted, to facilitate marine growth removal. Complete all cleaning operations within 24 hours after the vessel has been lifted.

3.6 Immediate work. The Contractor shall perform the following work, within 24 hours after the lifting of the vessel.

3.6.1 Temporary protective coverings. As soon as practicable after drydocking and underwater body surface cleaning, install protective coverings, over zinc anodes, hull fairing materials, propeller blade seals, rudder bearings, stern tube and strut bearings, spool pieces, spud wells, fin stabilizer seals bow thrusters, all exterior deck drains and all overboard discharges. Wrap all bearings and seals immediately after the vessel is drydocked to prevent entry of debris, abrasives, and paint during cleaning, surface preparation, and painting. Insert soft caulking material into the open ends of rudder and shaft stave bearings to prevent entry of grit or other foreign material.

NOTICE!

Do not remove protective covers except for inspection or accomplishing specific work items.

3.6.2 Overboard discharge channeling and plugging. Place drain channels in overboard discharges in use to direct discharges away from the hull. Provide and install wooden plugs or coverings in sea chest spool pieces and overboard discharges not in use to prevent entry of sandblast grit or paint.

3.7 Additional work. The Contractor shall reinstall the forward strut aft fairwater with new hardware as shown on Coast Guard Drawing 905 WMEC 114-003 upon completion of inspections.

NOTICE!

The forward strut aft fairwater has been previously removed to support diver inspection.

3.8 Allowable block timber stresses. The Contractor shall use information contained in the below table, in place of that which is provided in paragraph 20.5.1 (Allowable block timber stresses) of Std Spec 86340_STD.

WOOD PROPERTIES			
Block Material	Permissible Compressive Stress Perpendicular to the grain (psi)	Permissible Compressive Stress Parallel to the grain (psi)	Proportional limit Perpendicular to the grain (psi)
SOFTWOOD			
Douglas Fir	400	1400	800
Yellow Pine	300	900	700
HARDWOOD			
Red & White Oak	600	1300	1300

4. NOTES

4.1 Drydock terms. As used in these specifications, all references to drydock facilities include graving drydocks, floating drydocks, marine railways, building ways or vertical lifts.

4.2 Arrival conditions. The Engineer Officer (EO) will advise the Contractor of the actual tank and draft readings when the vessel arrives, and will discuss with the Contractor any ballast requirements necessary to accommodate the vessel draft and trim.

4.3 Paragraph number relationships. The paragraph number for each subsection listed herein relates directly to identical sub-paragraph numbers in Std Spec 8634_STD.

4.4 Cutter Characteristics. The data shown does not represent the arrival displacement or docking displacement of the cutter.

WORK ITEM 6: Provide Temporary Logistics

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to provide temporary logistics.

1.2 Government-furnished property.

None.

2. APPLICABLE DOCUMENTS

Coast Guard Maintenance and Logistics Command Atlantic (MLCA), Standard Specification 8635_STD, 2004 Edition, Provide Temporary Logistics

3. REQUIREMENTS

3.1 General. The Contractor shall provide the below listed temporary logistics, in accordance with Std Spec 8635_STD (see 4.1):

PARAGRAPH	TITLE
3.2.2	Telephone. (To include long distance line(s).
3.2.5	Light and power.
3.2.6	Compressed air.
3.2.7	Hazardous Waste Disposal.
3.2.10	Potable water: 4,000 gallons per day, at 40 psig
3.2.11	Refuse disposal.
3.2.12	Sewage and Grey Water Disposal.

3.2 Additional temporary logistics. If the performance period of the contract is extended by the Contracting Officer, the contractor shall continue to provide all temporary logistics as specified herein for the extension period.

4. NOTES

4.1 Paragraph number relationships. The paragraph number for each paragraph listed in 3.1 (General) relates directly to the identical sub-paragraph number in Std Spec 8635_STD.